



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/650,198	08/29/2000	Ronald S. Cok	81472THC	8639
1333	7590	06/14/2005	EXAMINER	
PATENT LEGAL STAFF EASTMAN KODAK COMPANY 343 STATE STREET ROCHESTER, NY 14650-2201			LE, UYEN CHAU N	
			ART UNIT	PAPER NUMBER
			2876	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/650,198

Applicant(s)

COK ET AL.

Examiner

Uyen-Chau N. Le

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Requesting Continued Examination (RCE)*

1. Receipt is acknowledged of the Requesting Continued Examination (RCE) field  
29 April 2005.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-2, 6-11, 17, 19-23, 27-32, 38 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bantum (US 6,466,209) in view of Wang et al (US 5,337,361) and Krutak Sr. et al (US 6,174,400).

Re claims 1-2, 6-11, 17, 19-23, 27-32, 38 and 40-42: Bantum discloses a visible image having a plurality of image pixels (col. 2, line 66 through col. 3, line 30); invisible information having a plurality of invisible data elements, each of the invisible data elements relating to and being in registration with a corresponding one of the image pixels of the visible image (col. 3, line 54 through col. 4, line 48 and col. 6, lines 49-67); the visible image is a pictorial image (figs. 1-2); the invisible information is recorded as a pattern of invisible ink deposited by an inkjet printer (col. 6, lines 45+); the invisible image is a classification, identification, categorization, etc. (col. 8, lines 15-60).

Bantum is silent with respect to recording the visible image and the invisible data on a support/medium, the invisible is detectable in the ultraviolet region of the electromagnetic spectrum and the article contains a temporal sequence of images, respectively.

Wang et al teaches (figs. 1A-1D; col. 3, line 50 through col. 5, line 38) an image bearing article, comprising: a support 16; a visible image 17, which can be a graphic/computer generated image or a photograph, recorded on the support 16 (fig. 1; col. 3, line 52+); and invisible information 18 recorded on the support 16, the invisible information 18 relating to and in registration with elements of the visible image 17; wherein the invisible information 18 is detectable in the ultraviolet region of the spectrum (col. 3, lines 67+); wherein the article contains a temporal sequence of images (col. 5, lines 35+).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Wang et al into the system as

taught by Bantum in order to provide Bantum with an alternative storage for storing data (i.e., hard copy). Furthermore, such modification would provide Bantum with a more secure system wherein an authorized individual cannot read or decode the invisible information from the medium/article without the necessary equipment (i.e., ultraviolet), and therefore an obvious expedient.

Bantum as modified by Wang et al is silent with respect to the invisible information having invisible data elements corresponding to each of the image pixels of the visible image, each of the invisible data elements relating to and being in the same physical pixel location as a respective one of the image pixels of the visible image.

Krutak Sr. et al teaches a printing media layer 12 containing invisible data elements 18 corresponding to each of the image pixels 16 of the visible image (fig. 1; col. 3, lines 7-15), each of the invisible data elements 18 relating to and being in the same physical pixel location as a respective one of the image pixels 16 of the visible image (fig. 3; col. 3, lines 7-15).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Krutak Sr. et al into the system as taught by Bantum/Wang et al in order to provide Bantum/Wang et al with a more secure system preventing both invisible and visible data from being copied and/or manipulated (i.e., if ones tries to copy or manipulate one data (either invisible or visible) will result in damaging both data), and therefore an obvious expedient.

5. Claims 3-5, 12, 18, 24-26, 33 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bantum as modified by Wang et al and Krutak Sr. et al as

Art Unit: 2876

applied to claims 1 and 22 above, and further in view of Williams et al (US 6,610,386). The teachings of Bantum as modified by Wang et al and Krutak Sr. et al have been discussed above.

Re claims 3-5, 12, 18, 24-26, 33 and 39: Bantum/Wang et al/Krutak Sr. et al have been discussed above but fails to teach or fairly suggest that the invisible information is recorded as a pattern of invisible ink/invisible dye; the invisible information is detectable in the infrared region of the spectrum.

Williams et al teaches the invisible patterns on sheet 14 is recorded as a pattern of invisible ink/dye (fig. 3; col. 3, lines 45+) and the invisible information is absorbed in the IR or UV regions (col. 3, lines 58+).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use invisible ink/dye as taught by Williams et al to record the invisible information of Bantum/Wang et al/Krutak Sr. et al in order to provide Bantum/Wang et al/Krutak Sr. et al with a more secure system wherein the invisible information only absorb in the infrared or ultraviolet regions. Furthermore, the luminescent property of the invisible ink/dye in the infrared or ultraviolet regions would enhance the reading quality, and thus producing a more accurate result/system.

6. Claims 13-16 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bantum as modified by Wang et al and Krutak Sr. et al as applied to claims 1 and 22 above, and further in view of Rhoads (US 6,252,963). The teachings of Bantum as modified by Wang et al and Krutak Sr. et al have been discussed above.

Re claims 13-16 and 34-37: Bantum/Wang et al/Krutak Sr. et al have been discussed above but fails to teach or fairly suggest that the visible image is a constrained image and the invisible information represents the difference between the constrained image and an unconstrained version of the image.

Rhoads teaches a constrained image and the invisible information represents the difference between the constrained image and an unconstrained version of the image (figs. 22-26 and 28; col. 3, lines 34-50; col. 58, line 64 through col. 63, line 22).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of the teachings of Rhoads into the system as taught by Bantum/Wang et al/ Krutak Sr. et al in order to provide Bantum/Wang et al/ Krutak Sr. et al with a more secure system wherein a constrained image and related information on the card/medium can be verified readily with an unconstrained version of the image (i.e., digital image taken of customer).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

Newly cited reference to Krutak Sr. et al was used in the new ground of rejection to further meet the newly added limitation of claims 1, 2, 22 and 23.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patents to Blazey (US 6101039 A) and Arai et al (JP 07266755 A) are of interest and illustrate to a similar structure of a non-image pixel data stored on hard-copy image media.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen-Chau N. Le whose telephone number is 571-272-2397. The examiner can normally be reached on Mon-Fri. 5:30AM-2:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



*Uyen-Chau N. Le*  
June 13, 2005